

HCM Signalized Intersection Capacity Analysis 2: Barry Place & Sherman Street

Total Future AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	4.0
Lane Util. Factor		1.00			1.00			0.95			0.95	1.00
Frt		1.00			0.97			0.98			1.00	0.85
Flt Protected		0.98			1.00			1.00			1.00	1.00
Satd. Flow (prot)		1823			1806			3482			3528	1583
Flt Permitted		0.80			0.99			0.81			0.81	1.00
Satd. Flow (perm)		1498			1790			2815			2852	1583
Volume (vph)	91	121	1	7	132	37	2	330	40	72	1089	165
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	99	132	1	8	143	40	2	359	43	78	1184	179
RTOR Reduction (vph)	0	0	0	0	10	0	0	9	0	0	0	107
Lane Group Flow (vph)	0	232	0	0	181	0	0	395	0	0	1262	72
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)		65.0			65.0			25.0			25.0	25.0
Effective Green, g (s)		66.0			66.0			26.0			26.0	26.0
Actuated g/C Ratio		0.66			0.66			0.26			0.26	0.26
Clearance Time (s)		5.0			5.0			5.0			5.0	5.0
Lane Grp Cap (vph)		989			1181			732			742	412
v/s Ratio Prot												
v/s Ratio Perm		c0.15			0.10			0.14			c0.44	0.05
v/c Ratio		0.23			0.15			0.54			1.70	0.18
Uniform Delay, d1		6.8			6.4			31.8			37.0	28.7
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.6			0.3			2.8			321.1	0.9
Delay (s)		7.4			6.7			34.7			358.1	29.6
Level of Service		A			A			C			F	C
Approach Delay (s)		7.4			6.7			34.7			317.3	
Approach LOS		A			A			C			F	
Intersection Summary												
HCM Average Control Delay		209.1						HCM Level of Service		F		
HCM Volume to Capacity ratio		0.65										
Actuated Cycle Length (s)		100.0						Sum of lost time (s)		8.0		
Intersection Capacity Utilization		77.0%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
3: Barry Place & 9th Street

Total Future AM

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Stop	Stop		Stop	
Volume (vph)	15	218	166	39	17	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	237	180	42	18	12
Direction, Lane #	EB 1	WB 1	SB 1	SB 2		
Volume Total (vph)	253	223	18	12		
Volume Left (vph)	16	0	18	0		
Volume Right (vph)	0	42	0	12		
Hadj (s)	0.05	-0.08	0.53	-0.67		
Departure Headway (s)	4.3	4.2	6.1	4.9		
Degree Utilization, x	0.30	0.26	0.03	0.02		
Capacity (veh/h)	832	840	548	672		
Control Delay (s)	9.1	8.6	8.1	6.7		
Approach Delay (s)	9.1	8.6	7.5			
Approach LOS	A	A	A			
Intersection Summary						
Delay				8.8		
HCM Level of Service				A		
Intersection Capacity Utilization				33.8%	ICU Level of Service	A
Analysis Period (min)				15		

HCM Unsignalized Intersection Capacity Analysis 4: Barry Place & 8th Street

Total Future AM

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	152	33	10	159	46	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	165	36	11	173	50	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)				282		
pX, platoon unblocked						
vC, conflicting volume			201		378	183
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			201		378	183
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		92	95
cM capacity (veh/h)			1371		619	859
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	201	184	92			
Volume Left	0	11	50			
Volume Right	36	0	42			
cSH	1700	1371	710			
Volume to Capacity	0.12	0.01	0.13			
Queue Length 95th (ft)	0	1	11			
Control Delay (s)	0.0	0.5	10.8			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.5	10.8			
Approach LOS			B			
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			28.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
5: Barry Place & Georgia Avenue

Total Future AM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			0.99	1.00	
Satd. Flow (prot)	1695			3512	3515	
Flt Permitted	0.98			0.56	1.00	
Satd. Flow (perm)	1695			1976	3515	
Volume (vph)	96	95	95	523	1363	64
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	103	103	568	1482	70
RTOR Reduction (vph)	35	0	0	0	3	0
Lane Group Flow (vph)	172	0	0	671	1549	0
Turn Type		D.P+P				
Protected Phases	4		3	2 3	2	
Permitted Phases			2			
Actuated Green, G (s)	14.0			74.0	54.0	
Effective Green, g (s)	14.0			74.0	54.0	
Actuated g/C Ratio	0.14			0.74	0.54	
Clearance Time (s)	4.0				4.0	
Lane Grp Cap (vph)	237			1769	1898	
v/s Ratio Prot	c0.10			c0.08	c0.44	
v/s Ratio Perm				0.20		
v/c Ratio	0.72			0.38	0.82	
Uniform Delay, d1	41.2			4.7	18.9	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	17.5			0.6	4.0	
Delay (s)	58.7			5.3	22.9	
Level of Service	E			A	C	
Approach Delay (s)	58.7			5.3	22.9	
Approach LOS	E			A	C	
Intersection Summary						
HCM Average Control Delay		21.1		HCM Level of Service		C
HCM Volume to Capacity ratio		0.70				
Actuated Cycle Length (s)		100.0		Sum of lost time (s)	12.0	
Intersection Capacity Utilization		78.1%		ICU Level of Service	D	
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
6: Florida Avenue & Sherman Street

Total Future AM

	↑	↗	↘	↓	↙	↖
Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑			↑	↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00			1.00	1.00	1.00
Fr _t	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1863			1863	1770	1583
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	1863			1863	1770	1583
Volume (vph)	255	0	0	209	1092	5
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	277	0	0	227	1187	5
RTOR Reduction (vph)	0	0	0	0	0	2
Lane Group Flow (vph)	277	0	0	227	1187	3
Turn Type					Perm	
Protected Phases	2			6	8	
Permitted Phases						8
Actuated Green, G (s)	32.0			32.0	60.0	60.0
Effective Green, g (s)	32.0			32.0	60.0	60.0
Actuated g/C Ratio	0.32			0.32	0.60	0.60
Clearance Time (s)	4.0			4.0	4.0	4.0
Lane Grp Cap (vph)	596			596	1062	950
v/s Ratio Prot	c0.15			0.12	c0.67	
v/s Ratio Perm						0.00
v/c Ratio	0.46			0.38	1.12	0.00
Uniform Delay, d ₁	27.2			26.3	20.0	8.0
Progression Factor	1.38			1.00	2.30	2.64
Incremental Delay, d ₂	2.5			1.8	54.4	0.0
Delay (s)	40.1			28.2	100.3	21.1
Level of Service	D			C	F	C
Approach Delay (s)	40.1			28.2	100.0	
Approach LOS	D			C	F	
Intersection Summary						
HCM Average Control Delay		80.6		HCM Level of Service		F
HCM Volume to Capacity ratio		0.89				
Actuated Cycle Length (s)		100.0		Sum of lost time (s)	8.0	
Intersection Capacity Utilization		80.6%		ICU Level of Service	D	
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis 7: Bryant Street & Georgia Avenue

Total Future AM

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations								↑↑			↑↑		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)								4.0			4.0		
Lane Util. Factor								0.95			0.95		
Frt								0.98			1.00		
Flt Protected								1.00			0.99		
Satd. Flow (prot)								3481			3505		
Flt Permitted								1.00			0.63		
Satd. Flow (perm)								3481			2237		
Volume (vph)	0	0	0	0	0	0	0	618	75	287	1171	0	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	0	0	0	0	0	0	672	82	312	1273	0	
RTOR Reduction (vph)	0	0	0	0	0	0	0	12	0	0	0	0	
Lane Group Flow (vph)	0	0	0	0	0	0	0	742	0	0	1585	0	
Turn Type										Prot			
Protected Phases								2		1	1	2	
Permitted Phases													
Actuated Green, G (s)								46.0			72.0		
Effective Green, g (s)								46.0			72.0		
Actuated g/C Ratio								0.57			0.90		
Clearance Time (s)								4.0					
Lane Grp Cap (vph)								2002			2425		
v/s Ratio Prot								0.21			c0.21		
v/s Ratio Perm											c0.38		
v/c Ratio								0.37			0.65		
Uniform Delay, d1								9.2			1.0		
Progression Factor								1.00			1.00		
Incremental Delay, d2								0.5			1.4		
Delay (s)								9.7			2.4		
Level of Service								A			A		
Approach Delay (s)		0.0			0.0			9.7			2.4		
Approach LOS		A			A			A			A		
Intersection Summary													
HCM Average Control Delay			4.7									HCM Level of Service	A
HCM Volume to Capacity ratio			0.65										
Actuated Cycle Length (s)			80.0								8.0	Sum of lost time (s)	
Intersection Capacity Utilization			66.8%									ICU Level of Service	C
Analysis Period (min)			15										
c Critical Lane Group													

HCM Unsignalized Intersection Capacity Analysis
8: W Street & Florida Avenue

Total Future AM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	12	116	0	618	1302	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	126	0	672	1415	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)				855	318	
pX, platoon unblocked	0.87					
vC, conflicting volume	2087	708	1415			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2248	708	1415			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	58	67	100			
cM capacity (veh/h)	31	377	477			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	13	126	672	708	708	
Volume Left	13	0	0	0	0	
Volume Right	0	126	0	0	0	
cSH	31	377	1700	1700	1700	
Volume to Capacity	0.42	0.33	0.40	0.42	0.42	
Queue Length 95th (ft)	34	36	0	0	0	
Control Delay (s)	190.6	19.3	0.0	0.0	0.0	
Lane LOS	F	C				
Approach Delay (s)	35.3		0.0	0.0		
Approach LOS	E					
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization			49.8%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
9: W Street & Georgia Avenue

Total Future AM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Fr _t	0.92		1.00			1.00
Flt Protected	0.98		1.00			1.00
Satd. Flow (prot)	1681		3539			3539
Flt Permitted	0.98		1.00			1.00
Satd. Flow (perm)	1681		3539			3539
Volume (vph)	156	222	471	0	0	1171
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	241	512	0	0	1273
RTOR Reduction (vph)	51	0	0	0	0	0
Lane Group Flow (vph)	360	0	512	0	0	1273
Turn Type						
Protected Phases	3		2			2
Permitted Phases						
Actuated Green, G (s)	34.0		58.0			58.0
Effective Green, g (s)	34.0		58.0			58.0
Actuated g/C Ratio	0.34		0.58			0.58
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	572		2053			2053
v/s Ratio Prot	c0.21		0.14			c0.36
v/s Ratio Perm						
v/c Ratio	0.63		0.25			0.62
Uniform Delay, d ₁	27.7		10.3			13.8
Progression Factor	1.00		0.82			1.00
Incremental Delay, d ₂	5.2		0.3			1.4
Delay (s)	32.9		8.8			15.2
Level of Service	C		A			B
Approach Delay (s)	32.9		8.8			15.2
Approach LOS	C		A			B
Intersection Summary						
HCM Average Control Delay			17.0		HCM Level of Service	B
HCM Volume to Capacity ratio			0.62			
Actuated Cycle Length (s)			100.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			61.3%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

ALL-WAY STOP CONTROL ANALYSIS								
General Information					Site Information			
Analyst	JWW				Intersection	Florida/9th/V Streets		
Agency/Co	Wells & Associates LLC				Jurisdiction	Washington DC		
Date Performed	8/29/2006				Analysis Year	2007 TF Conditions		
Analysis Time Period	AM Peak Period							
Project ID 2799 Atlantic North (August 2006 Addendum)								
East/West Street 9th Street/V Street					North/South Street Florida/9th Street			
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R		L	T	R	
Volume	25	98	438		82	105	25	
%Thrus Left Lane	55				50			
Approach	Northbound				Southbound			
Movement	L	T	R		L	T	R	
Volume	158	27	19		16	31		
%Thrus Left Lane	45				50			
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	TR	LTR		LT	TR	LTR	
PHF	0.90	0.90	0.90		0.90	0.90	0.90	
Flow Rate	85	536	234		188	37	83	
% Heavy Vehicles	2	2	2		2	2	2	
No. Lanes	2		1		2		1	
Geometry Group	5		4b		5		4b	
Duration T	0.25							
Saturation Headway Adjustment Worksheet								
Prop Left-Turns	0.3	0.0	0.4		0.9	0.0	0.2	
Prop Right-Turns	0.0	0.9	0.1		0.0	0.6	0.4	
Prop Heavy Vehicle								
hLT-adj	0.5	0.5	0.2	0.2	0.5	0.5	0.2	0.2
hRT-adj	-0.7	-0.7	-0.6	-0.6	-0.7	-0.7	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	6.22	6.22	6.22		6.22	6.22	6.22	
Departure Headway and Service Time								
hd initial value	3.20	3.20	3.20		3.20	3.20	3.20	
x, initial	0.08	0.48	0.21		0.17	0.03	0.07	
hd final value	6.22	6.22	6.22		6.22	6.22	6.22	
x final value	0.15	0.81	0.43		0.39	0.07	0.17	
Move up time, m	2.3		2.3		2.3		2.3	
Service Time	3.9	3.1	3.9	3.1	3.9	3.1	3.9	3.1
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	335	655	484		438	287	333	
Delay	9.99	26.80	14.10		14.93	9.80	11.39	
LOS	A	D	B		B	A	B	
Approach Delay	24.50		14.10		14.09		11.39	
LOS	C		B		B		B	
Intersection Delay	19.46							
Intersection LOS	C							

HCM Unsignalized Intersection Capacity Analysis
12: V Street & 8th Street

Total Future AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	24	97	50	14	150	29	23	32	27	15	11	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	105	54	15	163	32	25	35	29	16	12	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)					311							
pX, platoon unblocked												
vC, conflicting volume	195			160			418	410	133	441	421	179
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	195			160			418	410	133	441	421	179
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			95	93	97	97	98	98
cM capacity (veh/h)	1379			1419			512	516	917	473	508	864
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	186	210	89	47								
Volume Left	26	15	25	16								
Volume Right	54	32	29	18								
cSH	1379	1419	601	589								
Volume to Capacity	0.02	0.01	0.15	0.08								
Queue Length 95th (ft)	1	1	13	6								
Control Delay (s)	1.2	0.6	12.0	11.6								
Lane LOS	A	A	B	B								
Approach Delay (s)	1.2	0.6	12.0	11.6								
Approach LOS			B	B								
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization			27.7%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
14: U Street & Florida Avenue

Total Future AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑	↑		↑↑		↑	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95	1.00		0.95		1.00	0.95	
Frt		0.98			1.00	0.85		1.00		1.00	1.00	
Flt Protected		1.00			1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)		3459			3539	1583		3502		1770	3524	
Flt Permitted		1.00			1.00	1.00		0.63		0.35	1.00	
Satd. Flow (perm)		3459			3539	1583		2214		660	3524	
Volume (vph)	0	558	99	0	868	156	68	363	8	275	1119	32
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	607	108	0	943	170	74	395	9	299	1216	35
RTOR Reduction (vph)	0	15	0	0	0	100	0	1	0	0	2	0
Lane Group Flow (vph)	0	700	0	0	943	70	0	477	0	299	1249	0
Turn Type						Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases						8	2			6		
Actuated Green, G (s)		41.0			41.0	41.0		36.0		51.0	51.0	
Effective Green, g (s)		41.0			41.0	41.0		36.0		51.0	51.0	
Actuated g/C Ratio		0.41			0.41	0.41		0.36		0.51	0.51	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Lane Grp Cap (vph)		1418			1451	649		797		459	1797	
v/s Ratio Prot		0.20			0.27					0.07	0.35	
v/s Ratio Perm						0.04		0.22		0.26		
v/c Ratio		0.49			0.65	0.11		0.60		0.65	0.70	
Uniform Delay, d1		21.8			23.7	18.2		26.1		15.3	18.6	
Progression Factor		1.00			1.00	1.00		1.00		0.61	0.65	
Incremental Delay, d2		1.2			2.3	0.3		3.3		3.8	1.2	
Delay (s)		23.1			26.0	18.5		29.4		13.1	13.4	
Level of Service		C			C	B		C		B	B	
Approach Delay (s)		23.1			24.9			29.4			13.3	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM Average Control Delay		20.5								C		
HCM Volume to Capacity ratio		0.67										
Actuated Cycle Length (s)		100.0								8.0		
Intersection Capacity Utilization		78.2%								D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
15: Florida Avenue & 8th Street

Total Future AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	38	770	33	17	984	42	10	3	3	26	19	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	837	36	18	1070	46	11	3	3	28	21	34
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)		301										
pX, platoon unblocked				0.86			0.86	0.86	0.86	0.86	0.86	
vC, conflicting volume	1115			873			1375	2090	436	1635	2085	379
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1115			695			1276	2104	190	1578	2098	379
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			98			81	92	100	49	49	95
cM capacity (veh/h)	622			774			57	40	708	55	40	618
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	460	454	286	535	313	17	83					
Volume Left	41	0	18	0	0	11	28					
Volume Right	0	36	0	0	46	3	34					
cSH	622	1700	774	1700	1700	63	77					
Volume to Capacity	0.07	0.27	0.02	0.31	0.18	0.28	1.08					
Queue Length 95th (ft)	5	0	2	0	0	25	149					
Control Delay (s)	1.9	0.0	0.9	0.0	0.0	83.4	220.5					
Lane LOS	A		A			F	F					
Approach Delay (s)	1.0		0.2			83.4	220.5					
Approach LOS						F	F					
Intersection Summary												
Average Delay			9.7									
Intersection Capacity Utilization			58.2%			ICU Level of Service			B			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
16: 9th Street & Parcel C

Total Future AM

					
Movement	EBL2	EBL	SEL	SER	SWR
Lane Configurations					
Sign Control		Free	Stop		Free
Grade		0%	0%		0%
Volume (veh/h)	23	0	0	62	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	0	0	67	0
Pedestrians					
Lane Width (ft)					
Walking Speed (ft/s)					
Percent Blockage					
Right turn flare (veh)					
Median type			None		
Median storage (veh)					
Upstream signal (ft)					
pX, platoon unblocked					
vC, conflicting volume	0		50	0	
vC1, stage 1 conf vol					
vC2, stage 2 conf vol					
vCu, unblocked vol	0		50	0	
tC, single (s)	4.1		6.4	6.2	
tC, 2 stage (s)					
tF (s)	2.2		3.5	3.3	
p0 queue free %	98		100	94	
cM capacity (veh/h)	1623		944	1085	
Direction, Lane #	EB 1	SE 1	SW 1		
Volume Total	25	67	0		
Volume Left	25	0	0		
Volume Right	0	67	0		
cSH	1623	1085	1700		
Volume to Capacity	0.02	0.06	0.00		
Queue Length 95th (ft)	1	5	0		
Control Delay (s)	7.3	8.5	0.0		
Lane LOS	A	A			
Approach Delay (s)	7.3	8.5	0.0		
Approach LOS		A			
Intersection Summary					
Average Delay			8.2		
Intersection Capacity Utilization		13.8%		ICU Level of Service	A
Analysis Period (min)		15			

HCM Signalized Intersection Capacity Analysis
17: V Street & Georgia Avenue

Total Future AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Flt		0.97			0.97			0.99			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1770			1783			3503			3487	
Flt Permitted		0.86			0.90			0.78			0.93	
Satd. Flow (perm)		1546			1619			2735			3239	
Volume (vph)	49	55	33	28	51	22	40	399	18	33	1033	104
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	53	60	36	30	55	24	43	434	20	36	1123	113
RTOR Reduction (vph)	0	11	0	0	10	0	0	3	0	0	7	0
Lane Group Flow (vph)	0	138	0	0	99	0	0	494	0	0	1265	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			74.0			74.0	
Effective Green, g (s)		18.0			18.0			74.0			74.0	
Actuated g/C Ratio		0.18			0.18			0.74			0.74	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		278			291			2024			2397	
v/s Ratio Prot												
v/s Ratio Perm		c0.09			0.06			0.18			c0.39	
v/c Ratio		0.49			0.34			0.24			0.53	
Uniform Delay, d1		36.9			35.8			4.1			5.5	
Progression Factor		1.01			1.00			1.00			0.26	
Incremental Delay, d2		6.2			3.2			0.3			0.7	
Delay (s)		43.5			39.0			4.4			2.1	
Level of Service		D			D			A			A	
Approach Delay (s)		43.5			39.0			4.4			2.1	
Approach LOS		D			D			A			A	
Intersection Summary												
HCM Average Control Delay		7.7										
HCM Volume to Capacity ratio		0.52										
Actuated Cycle Length (s)		100.0							8.0			
Intersection Capacity Utilization		66.8%							C			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
18: University Dorns & Sherman Street

Total Future AM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	0	373	6	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	405	7	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						299
pX, platoon unblocked						
vC, conflicting volume	409	206			412	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	409	206			412	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	571	800			1143	
Direction, Lane #	WB 1	NB 1	NB 2			
Volume Total	0	270	142			
Volume Left	0	0	0			
Volume Right	0	0	7			
cSH	1700	1700	1700			
Volume to Capacity	0.00	0.16	0.08			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0				
Approach LOS	A					
Intersection Summary						
Average Delay		0.0				
Intersection Capacity Utilization		13.8%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis
34: 10th Avenue & Florida Avenue

Total Future PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	SER2
Lane Configurations												
Sign Control		Stop			Stop			Stop		Stop		
Volume (vph)	13	10	2	1	13	184	10	272	6	278	236	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	11	2	1	14	200	11	296	7	302	257	10
Direction, Lane #	EB 1	WB 1	NB 1	SE 1	SE 2							
Volume Total (vph)	27	215	313	302	266							
Volume Left (vph)	14	1	11	302	0							
Volume Right (vph)	2	200	7	0	10							
Hadj (s)	0.09	-0.52	0.03	0.53	0.01							
Departure Headway (s)	6.6	5.5	5.5	6.1	5.6							
Degree Utilization, x	0.05	0.33	0.47	0.52	0.42							
Capacity (veh/h)	457	600	634	571	625							
Control Delay (s)	9.9	11.1	13.3	14.3	11.3							
Approach Delay (s)	9.9	11.1	13.3	12.9								
Approach LOS	A	B	B	B								
Intersection Summary												
Delay			12.6									
HCM Level of Service			B									
Intersection Capacity Utilization			53.5%			ICU Level of Service			A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
2: Barry Place & Sherman Street

Total Future PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	4.0
Lane Util. Factor		1.00			1.00			0.95			0.95	1.00
Fr't		1.00			0.96			1.00			1.00	0.85
Flt Protected		0.98			0.99			1.00			1.00	1.00
Satd. Flow (prot)		1822			1769			3524			3522	1583
Flt Permitted		0.80			0.94			0.95			0.52	1.00
Satd. Flow (perm)		1482			1677			3345			1837	1583
Volume (vph)	120	169	5	23	100	60	8	970	26	52	483	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	184	5	25	109	65	9	1054	28	57	525	98
RTOR Reduction (vph)	0	1	0	0	1	0	0	1	0	0	0	73
Lane Group Flow (vph)	0	318	0	0	198	0	0	1090	0	0	582	25
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)		65.0			65.0			25.0			25.0	25.0
Effective Green, g (s)		66.0			66.0			26.0			26.0	26.0
Actuated g/C Ratio		0.66			0.66			0.26			0.26	0.26
Clearance Time (s)		5.0			5.0			5.0			5.0	5.0
Lane Grp Cap (vph)		978			1107			870			478	412
v/s Ratio Prot												
v/s Ratio Perm		c0.21			0.12			c0.33			0.32	0.02
v/c Ratio		0.33			0.18			1.25			1.22	0.06
Uniform Delay, d1		7.4			6.6			37.0			37.0	27.8
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.9			0.4			123.0			115.7	0.3
Delay (s)		8.2			6.9			160.0			152.7	28.1
Level of Service		A			A			F			F	C
Approach Delay (s)		8.2			6.9			160.0			134.8	
Approach LOS		A			A			F			F	

Intersection Summary

HCM Average Control Delay	118.1	HCM Level of Service	F
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
3: Barry Place & 9th Street

Total Future PM

								
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Sign Control		Stop	Stop		Stop			
Volume (vph)	20	226	147	53	34	35		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	22	246	160	58	37	38		
Direction, Lane #	EB 1	WB 1	SB 1	SB 2				
Volume Total (vph)	267	217	37	38				
Volume Left (vph)	22	0	37	0				
Volume Right (vph)	0	58	0	38				
Hadj (s)	0.05	-0.12	0.53	-0.67				
Departure Headway (s)	4.4	4.3	6.1	4.9				
Degree Utilization, x	0.33	0.26	0.06	0.05				
Capacity (veh/h)	802	812	546	669				
Control Delay (s)	9.5	8.7	8.3	7.0				
Approach Delay (s)	9.5	8.7	7.6					
Approach LOS	A	A	A					
Intersection Summary								
Delay			9.0					
HCM Level of Service			A					
Intersection Capacity Utilization			37.3%	ICU Level of Service	A			
Analysis Period (min)			15					

HCM Unsignalized Intersection Capacity Analysis 4: Barry Place & 8th Street

Total Future PM

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↖	↗
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	193	68	14	177	23	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	210	74	15	192	25	92
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				282		
pX, platoon unblocked						
vC, conflicting volume			284		470	247
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			284		470	247
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		95	88
cM capacity (veh/h)			1279		546	792
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	284	208	117			
Volume Left	0	15	25			
Volume Right	74	0	92			
cSH	1700	1279	723			
Volume to Capacity	0.17	0.01	0.16			
Queue Length 95th (ft)	0	1	14			
Control Delay (s)	0.0	0.7	10.9			
Lane LOS		A	B			
Approach Delay (s)	0.0	0.7	10.9			
Approach LOS			B			
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			34.0%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
5: Barry Place & Georgia Avenue

Total Future PM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Fr _t	0.95			1.00	0.99	
Fl _t Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1714			3526	3489	
Fl _t Permitted	0.97			0.67	1.00	
Satd. Flow (perm)	1714			2385	3489	
Volume (vph)	172	106	65	793	1214	126
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	187	115	71	862	1320	137
RTOR Reduction (vph)	22	0	0	0	8	0
Lane Group Flow (vph)	280	0	0	933	1449	0
Turn Type		D.P+P				
Protected Phases	4		3	2 3	2	
Permitted Phases			2			
Actuated Green, G (s)	14.0			74.0	54.0	
Effective Green, g (s)	14.0			74.0	54.0	
Actuated g/C Ratio	0.14			0.74	0.54	
Clearance Time (s)	4.0				4.0	
Lane Grp Cap (vph)	240			1993	1884	
v/s Ratio Prot	c0.16			c0.09	c0.42	
v/s Ratio Perm				0.25		
v/c Ratio	1.17			0.47	0.77	
Uniform Delay, d ₁	43.0			5.2	18.1	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d ₂	110.1			0.8	3.1	
Delay (s)	153.1			6.0	21.2	
Level of Service	F			A	C	
Approach Delay (s)	153.1			6.0	21.2	
Approach LOS	F			A	C	
Intersection Summary						
HCM Average Control Delay			30.7	HCM Level of Service		C
HCM Volume to Capacity ratio			0.76			
Actuated Cycle Length (s)			100.0	Sum of lost time (s)		12.0
Intersection Capacity Utilization			87.4%	ICU Level of Service		E
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis
6: Florida Avenue & Sherman Street

Total Future PM

	↑	↗	↘	↓	↙	↖
Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑			↑	↗	↖
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	1.00			1.00	1.00	1.00
Fr _t	1.00			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	1863			1863	1770	1583
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	1863			1863	1770	1583
Volume (vph)	288	0	0	239	511	5
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	313	0	0	260	555	5
RTOR Reduction (vph)	0	0	0	0	0	2
Lane Group Flow (vph)	313	0	0	260	555	3
Turn Type					Perm	
Protected Phases	2			6	8	
Permitted Phases						8
Actuated Green, G (s)	32.0			32.0	60.0	60.0
Effective Green, g (s)	32.0			32.0	60.0	60.0
Actuated g/C Ratio	0.32			0.32	0.60	0.60
Clearance Time (s)	4.0			4.0	4.0	4.0
Lane Grp Cap (vph)	596			596	1062	950
v/s Ratio Prot	c0.17			0.14	c0.31	
v/s Ratio Perm						0.00
v/c Ratio	0.53			0.44	0.52	0.00
Uniform Delay, d ₁	27.8			26.9	11.7	8.0
Progression Factor	1.54			1.00	2.54	2.70
Incremental Delay, d ₂	2.4			2.3	0.2	0.0
Delay (s)	45.3			29.2	29.7	21.6
Level of Service	D			C	C	C
Approach Delay (s)	45.3			29.2	29.7	
Approach LOS	D			C	C	
Intersection Summary						
HCM Average Control Delay			33.9		HCM Level of Service	C
HCM Volume to Capacity ratio			0.52			
Actuated Cycle Length (s)			100.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			50.1%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Total Future PM

Synchro 6 Report
Page 6

HCM Unsignalized Intersection Capacity Analysis
8: W Street & Florida Avenue

Total Future PM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	44	179	0	1255	750	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	48	195	0	1364	815	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)					318	
pX, platoon unblocked						
vC, conflicting volume	2179	408	815			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2179	408	815			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	67	100			
cM capacity (veh/h)	39	593	808			
Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2	
Volume Total	48	195	1364	408	408	
Volume Left	48	0	0	0	0	
Volume Right	0	195	0	0	0	
cSH	39	593	1700	1700	1700	
Volume to Capacity	1.22	0.33	0.80	0.24	0.24	
Queue Length 95th (ft)	120	36	0	0	0	
Control Delay (s)	373.9	14.0	0.0	0.0	0.0	
Lane LOS	F	B				
Approach Delay (s)	85.0		0.0	0.0		
Approach LOS	F					
Intersection Summary						
Average Delay			8.5			
Intersection Capacity Utilization			76.1%	ICU Level of Service		D
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
9: W Street & Georgia Avenue

Total Future PM

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	↑↑	↑↑	W	W
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frt	0.92		1.00			1.00
Flt Protected	0.98		1.00			1.00
Satd. Flow (prot)	1684		3539			3539
Flt Permitted	0.98		1.00			1.00
Satd. Flow (perm)	1684		3539			3539
Volume (vph)	156	202	758	0	0	857
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	220	824	0	0	932
RTOR Reduction (vph)	47	0	0	0	0	0
Lane Group Flow (vph)	343	0	824	0	0	932
Turn Type						
Protected Phases	3		2			2
Permitted Phases						
Actuated Green, G (s)	34.0		58.0			58.0
Effective Green, g (s)	34.0		58.0			58.0
Actuated g/C Ratio	0.34		0.58			0.58
Clearance Time (s)	4.0		4.0			4.0
Lane Grp Cap (vph)	573		2053			2053
v/s Ratio Prot	c0.20		0.23			c0.26
v/s Ratio Perm						
v/c Ratio	0.60		0.40			0.45
Uniform Delay, d1	27.3		11.5			12.0
Progression Factor	1.00		0.75			1.00
Incremental Delay, d2	4.6		0.5			0.7
Delay (s)	31.9		9.1			12.7
Level of Service	C		A			B
Approach Delay (s)	31.9		9.1			12.7
Approach LOS	C		A			B
Intersection Summary						
HCM Average Control Delay			14.8		HCM Level of Service	B
HCM Volume to Capacity ratio			0.51			
Actuated Cycle Length (s)			100.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			51.4%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

ALL-WAY STOP CONTROL ANALYSIS								
General Information					Site Information			
Analyst	JWW				Intersection	Florida/9th/V Streets		
Agency/Co	Wells & Associates LLC				Jurisdiction	Washington DC		
Date Performed	8/29/2006				Analysis Year	2007 TF Conditions		
Analysis Time Period	PM Peak Period							
Project ID 2799 Atlantic North (August 2006 Addendum)								
East/West Street 9th Street/V Street					North/South Street Florida/9th Street			
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R		L	T	R	
Volume	42	105	260		101	168	28	
%Thrus Left Lane	55				50			
Approach	Northbound				Southbound			
Movement	L	T	R		L	T	R	
Volume	354	52	32		35	37	34	
%Thrus Left Lane	45				50			
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	TR	LTR		LT	TR	LTR	
PHF	0.90	0.90	0.90		0.90	0.90	0.90	
Flow Rate	109	341	329		418	67	116	
% Heavy Vehicles	2	2	2		2	2	2	
No. Lanes	2		1		2		1	
Geometry Group	5		4b		5		4b	
Duration T	0.25							
Saturation Headway Adjustment Worksheet								
Prop Left-Turns	0.4	0.0	0.3		0.9	0.0	0.3	
Prop Right-Turns	0.0	0.8	0.1		0.0	0.5	0.3	
Prop Heavy Vehicle								
hLT-adj	0.5	0.5	0.2	0.2	0.5	0.5	0.2	0.2
hRT-adj	-0.7	-0.7	-0.6	-0.6	-0.7	-0.7	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	8.04	8.04	8.04		8.04	8.04	8.04	
Departure Headway and Service Time								
hd initial value	3.20	3.20	3.20		3.20	3.20	3.20	
x initial	0.10	0.30	0.29		0.37	0.06	0.10	
hd final value	8.04	8.04	8.04		8.04	8.04	8.04	
x final value	0.24	0.68	0.72		0.93	0.13	0.28	
Move-up time, m	2.3		2.3		2.3		2.3	
Service Time	5.7	4.9	5.7	4.9	5.7	4.9	5.7	4.9
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	359	481	439		445	317	366	
Delay	13.30	24.07	28.66		55.66	10.98	14.84	
LOS	B	C	D		F	B	B	
Approach Delay	21.46		28.66		49.49		14.84	
LOS	C		D		E		B	
Intersection Delay	32.47							
Intersection LOS	D							

HCM Unsignalized Intersection Capacity Analysis 12: V Street & 8th Street

Total Future PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	9	117	42	18	222	73	74	26	44	33	16	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	127	46	20	241	79	80	28	48	36	17	35
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)					310							
pX, platoon unblocked												
vC, conflicting volume	321			173			533	529	150	552	512	281
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	321			173			533	529	150	552	512	281
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			81	94	95	91	96	95
cM capacity (veh/h)	1239			1404			417	445	896	394	455	758
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	183	340	157	88								
Volume Left	10	20	80	36								
Volume Right	46	79	48	35								
cSH	1239	1404	505	503								
Volume to Capacity	0.01	0.01	0.31	0.18								
Queue Length 95th (ft)	1	1	33	16								
Control Delay (s)	0.5	0.6	15.3	13.7								
Lane LOS	A	A	C	B								
Approach Delay (s)	0.5	0.6	15.3	13.7								
Approach LOS			C	B								
Intersection Summary												
Average Delay			5.1									
Intersection Capacity Utilization			40.4%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
14: U Street & Florida Avenue

Total Future PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑	↑		↑↑		↑	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95	1.00		0.95		1.00	0.95	
Frt		0.98			1.00	0.85		1.00		1.00	0.99	
Flt Protected		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		3472			3539	1583		3526		1770	3510	
Flt Permitted		1.00			1.00	1.00		0.88		0.10	1.00	
Satd. Flow (perm)		3472			3539	1583		3095		186	3510	
Volume (vph)	0	785	114	0	716	207	49	938	9	274	606	35
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	853	124	0	778	225	53	1020	10	298	659	38
RTOR Reduction (vph)	0	11	0	0	0	133	0	1	0	0	4	0
Lane Group Flow (vph)	0	966	0	0	778	92	0	1082	0	298	693	0
Turn Type						Perm	Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases						8	2			6		
Actuated Green, G (s)		41.0			41.0	41.0		36.0		51.0	51.0	
Effective Green, g (s)		41.0			41.0	41.0		36.0		51.0	51.0	
Actuated g/C Ratio		0.41			0.41	0.41		0.36		0.51	0.51	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Lane Grp Cap (vph)		1424			1451	649		1114		269	1790	
v/s Ratio Prot		c0.28			0.22					c0.12	0.20	
v/s Ratio Perm						0.06		0.35		c0.44		
v/c Ratio		0.68			0.54	0.14		0.97		1.11	0.39	
Uniform Delay, d1		24.1			22.3	18.5		31.5		28.0	15.0	
Progression Factor		1.00			1.00	1.00		1.00		0.94	1.02	
Incremental Delay, d2		2.6			1.4	0.5		20.9		85.9	0.6	
Delay (s)		26.7			23.7	18.9		52.4		112.2	15.9	
Level of Service		C			C	B		D		F	B	
Approach Delay (s)		26.7			22.7			52.4			44.7	
Approach LOS		C			C			D			D	
Intersection Summary												
HCM Average Control Delay		37.0					HCM Level of Service		D			
HCM Volume to Capacity ratio		0.90										
Actuated Cycle Length (s)		100.0					Sum of lost time (s)		8.0			
Intersection Capacity Utilization		80.8%					ICU Level of Service		D			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
15: Florida Avenue & 8th Street

Total Future PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	78	965	24	24	879	49	10	19	4	30	11	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	85	1049	26	26	955	53	11	21	4	33	12	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)		301										
pX, platoon unblocked				0.78			0.78	0.78	0.78	0.78	0.78	
vC, conflicting volume	1009			1075			1644	2292	538	1743	2279	345
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1009			816			1544	2374	127	1671	2357	345
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			96			64	8	99	0	48	94
cM capacity (veh/h)	683			631			30	22	702	9	23	651
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	609	551	265	478	292	36	80					
Volume Left	85	0	26	0	0	11	33					
Volume Right	0	26	0	0	53	4	36					
cSH	683	1700	631	1700	1700	28	18					
Volume to Capacity	0.12	0.32	0.04	0.28	0.17	1.29	4.38					
Queue Length 95th (ft)	11	0	3	0	0	105	Err					
Control Delay (s)	3.2	0.0	1.6	0.0	0.0	479.6	Err					
Lane LOS	A		A			F	F					
Approach Delay (s)	1.7		0.4			479.6	Err					
Approach LOS						F	F					
Intersection Summary												
Average Delay			356.5									
Intersection Capacity Utilization			64.6%			ICU Level of Service			C			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 16: Parcel C & 9th Street

Total Future PM

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	63	86	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	68	93	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	187	0	0			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	187	0	0			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	94			
cM capacity (veh/h)	756	1085	1623			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	68	93	0			
Volume Left	0	93	0			
Volume Right	68	0	0			
cSH	1085	1623	1700			
Volume to Capacity	0.06	0.06	0.00			
Queue Length 95th (ft)	5	5	0			
Control Delay (s)	8.5	7.4	0.0			
Lane LOS	A	A				
Approach Delay (s)	8.5	7.4	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			7.9			
Intersection Capacity Utilization			15.3%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis
17: V Street & Georgia Avenue

Total Future PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.96			0.97			1.00			0.98	
Flt Protected		0.99			0.99			0.99			1.00	
Satd. Flow (prot)		1765			1789			3511			3466	
Flt Permitted		0.74			0.73			0.71			0.93	
Satd. Flow (perm)		1327			1327			2513			3234	
Volume (vph)	54	82	55	62	107	39	97	665	8	17	727	113
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	89	60	67	116	42	105	723	9	18	790	123
RTOR Reduction (vph)	0	15	0	0	8	0	0	1	0	0	12	0
Lane Group Flow (vph)	0	193	0	0	217	0	0	836	0	0	919	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0			74.0			74.0	
Effective Green, g (s)		18.0			18.0			74.0			74.0	
Actuated g/C Ratio		0.18			0.18			0.74			0.74	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		239			239			1860			2393	
v/s Ratio Prot												
v/s Ratio Perm		0.15			c0.16			c0.33			0.28	
v/c Ratio		0.81			0.91			0.45			0.38	
Uniform Delay, d1		39.3			40.2			5.1			4.7	
Progression Factor		1.01			1.00			1.00			0.41	
Incremental Delay, d2		24.7			38.4			0.8			0.4	
Delay (s)		64.5			78.5			5.9			2.3	
Level of Service		E			E			A			A	
Approach Delay (s)		64.5			78.5			5.9			2.3	
Approach LOS		E			E			A			A	
Intersection Summary												
HCM Average Control Delay		17.3				HCM Level of Service		B				
HCM Volume to Capacity ratio		0.54										
Actuated Cycle Length (s)		100.0				Sum of lost time (s)		8.0				
Intersection Capacity Utilization		71.1%				ICU Level of Service		C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis 18: University Dorns & Sherman Street

Total Future PM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	1	1004	3	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	1091	3	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)					299	
pX, platoon unblocked						
vC, conflicting volume	1093	547			1095	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1093	547			1095	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	209	481			633	
Direction, Lane #	WB 1	NB 1	NB 2			
Volume Total	1	728	367			
Volume Left	0	0	0			
Volume Right	1	0	3			
cSH	481	1700	1700			
Volume to Capacity	0.00	0.43	0.22			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	12.5	0.0	0.0			
Lane LOS	B					
Approach Delay (s)	12.5	0.0				
Approach LOS	B					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			37.8%	ICU Level of Service	A	
Analysis Period (min)			15			

Appendix B

Atlantic South Tables, Figures, And Analyses

Table B-1
Atlantic South
Pipeline Developments Site Trip Generation Analysis (August 2006 Addendum)

Land Use	Land Use Code	Size	Units	AM Peak Hour			PM Peak Hour			Average Daily Traffic
				In	Out	Total	In	Out	Total	
The Lincoln Condominium										
Condominiums	230	147	D U	12	58	70	55	27	82	891
Reduction for Transit Use ²		67%		8	39	47	37	18	55	593
Net New Residential Trips				4	19	23	18	9	27	298
The Floridian										
Condominiums	230	118	D U	10	49	59	46	23	69	739
Reduction for Transit Use ²		67%		7	33	39	31	15	46	492
Net New Residential Trips				3	16	20	15	8	23	247
The Rhapsody										
Condominiums	230	162	D U	13	63	76	60	29	89	967
Reduction for Transit Use ²		67%		9	42	51	40	20	59	643
Net New Residential Trips				4	21	25	20	9	30	324
The Brandon										
Condominiums	230	12	D U	2	7	9	7	4	11	106
Reduction for Transit Use ²		67%		1	5	6	5	2	7	71
Net New Residential Trips				1	2	3	2	2	4	35
Atlantic South										
Parcel C										
Existing Atlantic Plumbing Warehouse ³				7	5	12	5	0	5	
Proposed Residential Condominium	230	322	D U	22	110	132	105	52	157	1 734
Reduction for Transit Use ³		50%		11	55	66	53	26	79	867
Net New Residential Trips				11	55	66	52	26	79	867
Proposed Retail	820	22,880 S.F.		40	25	65	114	123	237	2 604
Reduction Transit Use ³		70%		28	18	46	80	86	166	1 823
Net New Residential Trips				12	8	20	34	37	71	781
Net New Parcel C Site Trips				16	58	74	82	63	145	1 648
Total Pipeline Site Generated Trips				28	117	145	138	91	229	2,553

Notes: ¹ Based on Trip Generation, 7th Edition, Institute of Transportation Engineers.

² Transit reduction based on "Development Related Ridership Survey II" by JHK & Associates, 1989

³ Trips observed during peak hour traffic counts conducted on Tuesday April 12, 2005

Table B-2
Atlantic South Plumbing Site
Site Trip Generation Analysis ¹ (August 2006 Addendum)

Land Use	Land Use Code	Size	Units	AM Peak Hour			PM Peak Hour			Average Daily Traffic
				In	Out	Total	In	Out	Total	
Existing Development²										
Parcel A										
Existing Atlantic Plumbing Warehouse				13	5	18	1	12	13	
Parcel B										
Existing Building				1	2	3	2	1	3	
Parcel D										
Dumpster Gated Area				0	0	0	0	0	0	
Proposed Development										
Parcel A										
Residential Condominium	230	367 D U		25	121	146	117	58	175	1,938
Reduction for Transit Use ³		50%		12	61	73	59	29	88	969
Net New Residential Trips				13	60	73	58	29	88	969
Retail	820	6,245 S F		18	12	30	48	52	100	1,120
Reduction Transit Use ³		70%		13	8	21	34	36	70	784
Net New Retail Trips				5	4	9	14	16	30	336
Total Net New Site-Generated Trips for Parcel A				5	59	64	72	33	105	1,305
Parcel B										
Residential Condominium	230	92 D U		8	40	48	38	18	56	598
Reduction for Transit Use ³		50%		4	20	24	19	9	28	299
Net New Residential Trips				4	20	24	19	9	28	299
Retail	820	4 306 S F		15	9	24	38	41	79	879
Reduction Transit Use ³		70%		10	7	17	27	29	55	615
Net New Retail Trips				4	3	7	11	12	24	264
Total Net New Site-Generated Trips for Parcel B				7	21	28	29	20	49	563
Parcel D										
Residential Condominium	230	0 D U		0	0	0	0	0	0	0
Reduction for Transit Use ³		50%		0	0	0	0	0	0	0
Net New Residential Trips				0	0	0	0	0	0	0
Retail	820	0 S F		0	0	0	0	0	0	0
Reduction Transit Use ³		70%		0	0	0	0	0	0	0
Net New Retail Trips				0	0	0	0	0	0	0
Total Net New Site-Generated Trips for Parcel D				0	0	0	0	0	0	0

Notes. ¹ Based on Trip Generation 7th Edition Institute of Transportation Engineers

² Trips observed during peak hour traffic counts conducted on Tuesday, April 12, 2005

³ Transit reduction based on "Development Related Ridership Survey II", by JHK & Associates, 1989 and the 2000 US Census.

Table B-3

Atlantic South (August 2006 Addendum)Peak Hour Intersection Levels of Service ¹

Intersection		Type of Control	2007 Background Conditions		2007 Total Future Conditions	
			AM	PM	AM	PM
1 Florida Ave./10th St./Barry Place	Stop Sign	EBLTR	A[10 0]	A[9 8]	B[10 1]	A[9 9]
		WBLTR	B[13 0]	B[11 0]	B[13 2]	B[11 1]
		NBLTR	B[12 6]	B[12 7]	B[13 2]	B[13 3]
		SBLTR	B[11 1]	B[12 6]	B[11 3]	B[12 9]
2 Barry Place/Sherman Avenue	Signal	EB	A(7 4)	A(8 2)	A(7 4)	A(8 2)
		WB	A(6 7)	A(6 9)	A(6 7)	A(6 9)
		NB	C(34 7)	F(160 0)	C(34 7)	F(160 0)
		SB	<u>F(317.3)</u>	<u>F(134.8)</u>	<u>F(317.3)</u>	<u>F(134.8)</u>
		Overall	F(209 1)	F(118 1)	F(209 1)	F(118 1)
3 9th Street/Barry Place	Stop Sign	EBLT	A[9 1]	A[9 5]	A[9 1]	A[9 5]
		WBTR	A[8 6]	A[8 7]	A[8 6]	A[8 7]
		SBLR	A[7 5]	A[7 6]	A[7 5]	A[7 6]
4 8th Street/Barry Place	Stop Sign	WBLT	A[0 5]	A[0 7]	A[0 5]	A[0 7]
		NBLR	B[10 8]	B[10 9]	B[10 8]	B[10 9]
5 Barry Place/Georgia Avenue	Signal	EB	E(58 7)	F(153 1)	E(58 7)	F(153 1)
		NB	A(5 3)	A(5 9)	A(5 3)	A(6 0)
		SB	<u>C(22.9)</u>	<u>C(21.1)</u>	<u>C(22.9)</u>	<u>C(21.2)</u>
		Overall	C(21 1)	C(30 7)	C(21 1)	C(30 7)
6 Florida Avenue/Sherman Avenue	Signal	NB	D(39 9)	D(45 0)	D(40 1)	D(45 3)
		SB	C(28 0)	C(28 4)	C(28 2)	C(29 2)
		SWB	<u>F(100.0)</u>	<u>C(29.7)</u>	<u>F(100.0)</u>	<u>C(29.7)</u>
		Overall	F(81 2)	C(33 5)	F(80 6)	C(33 9)
7 Bryant Street/Georgia Avenue	Signal	NB	A(9 7)	B(11 2)	A(9 7)	B(11 2)
		SB	<u>A(2.4)</u>	<u>A(2.5)</u>	<u>A(2.4)</u>	<u>A(2.5)</u>
		Overall	A(4 7)	A(6 1)	A(4 7)	A(6 2)
8 Florida Avenue/Parcel C/W Street	Stop Sign	EBLR	D[34 1]	F[76 6]	E[35 3]	F[85 0]
		WBLTR	N/A	N/A	N/A	N/A

Notes ¹ Analysis performed using Synchro/Simtraffic Version 6.0² An asterisk (*) indicates delays greater than 999.9 seconds.

Table B-3 (cont)

Atlantic South (August 2006 Addendum)Peak Hour Intersection Levels of Service ¹

Intersection	Type of Control	2007 Background Conditions		2007 Total Future Conditions	
		AM	PM	AM	PM
9 W Street/Georgia Avenue	Signal				
WB		C(32.9)	C(31.9)	C(32.9)	C(31.9)
NB		A(9.1)	A(9.3)	A(8.8)	A(9.1)
SB		<u>B(15.2)</u>	<u>B(12.7)</u>	<u>B(15.2)</u>	<u>B(12.7)</u>
Overall		B(17.1)	B(14.9)	B(17.0)	B(14.8)
11 9th Street/V Street/Florida Avenue ⁽³⁾	Stop Sign				
EBLTR		C[22.52]	C[19.16]	C[24.50]	C[21.46]
WBLTR		B[12.69]	C[23.02]	B[14.10]	D[28.66]
NBLTR		B[13.87]	E[45.92]	B[14.09]	E[49.49]
SBLTR		B[11.12]	B[14.10]	B[11.39]	B[14.84]
12 8th Street/V Street	Stop Sign				
EBLTR		A[1.7]	A[0.6]	A[1.2]	A[0.5]
WBLTR		A[0.7]	A[0.6]	A[0.6]	A[0.6]
NBLTR		B[11.7]	C[12.5]	B[12.0]	C[15.3]
SBLTR		B[11.6]	B[13.7]	B[11.6]	B[13.7]
14 9th Street/U Street/Florida Avenue	Signal				
EB		C(23.0)	C(26.3)	C(23.1)	C(26.7)
WB		C(24.5)	C(22.5)	C(24.9)	C(22.7)
NB		C(29.2)	D(49.4)	C(29.4)	D(52.4)
SB		<u>B(19.2)</u>	<u>D(44.6)</u>	<u>B(13.3)</u>	<u>D(44.7)</u>
Overall		C(23.0)	D(36.0)	C(20.5)	D(37.0)
15 8th Street/Florida Avenue	Stop Sign				
EBLTR		A[0.8]	A[1.1]	A[1.0]	A[1.7]
WBLTR		A[0.2]	A[0.4]	A[0.2]	A[0.4]
NBLTR		F[136.5]	F[594.2]	F[83.4]	F[479.6]
SBLTR		F[170.3]	F[528.3]	F[220.5]	F[*]
16 V Street/New Parcels A & D Driveway	Stop Sign				
EBLTR		N/A	N/A	A[0.5]	A[1.6]
WBLTR		N/A	N/A	A[0.2]	A[0.5]
NBLTR		N/A	N/A	B[10.1]	B[11.6]
SBLTR		N/A	N/A	B[11.1]	B[13.0]
17 Georgia Avenue/V Street	Signal				
EB		D(42.8)	D(52.1)	D(43.5)	E(64.5)
WB		D(36.2)	D(42.1)	D(39.0)	E(78.5)
NB		A(4.3)	A(5.8)	A(4.4)	A(5.9)
SB		<u>A(2.1)</u>	<u>A(2.3)</u>	<u>A(2.1)</u>	<u>A(2.3)</u>
Overall		A(7.4)	B(12.3)	A(7.7)	B(17.3)
18 Sherman Avenue/University Dorms	Stop Sign				
WVBR		A[0.0]	B[12.5]	A[0.0]	B[12.5]

Notes ¹ Analysis performed using Synchro/Simtraffic Version 6.0² An asterisk (*) indicates delays greater than 999.9 secondsWells Associates, LLC
McLean, Virginia

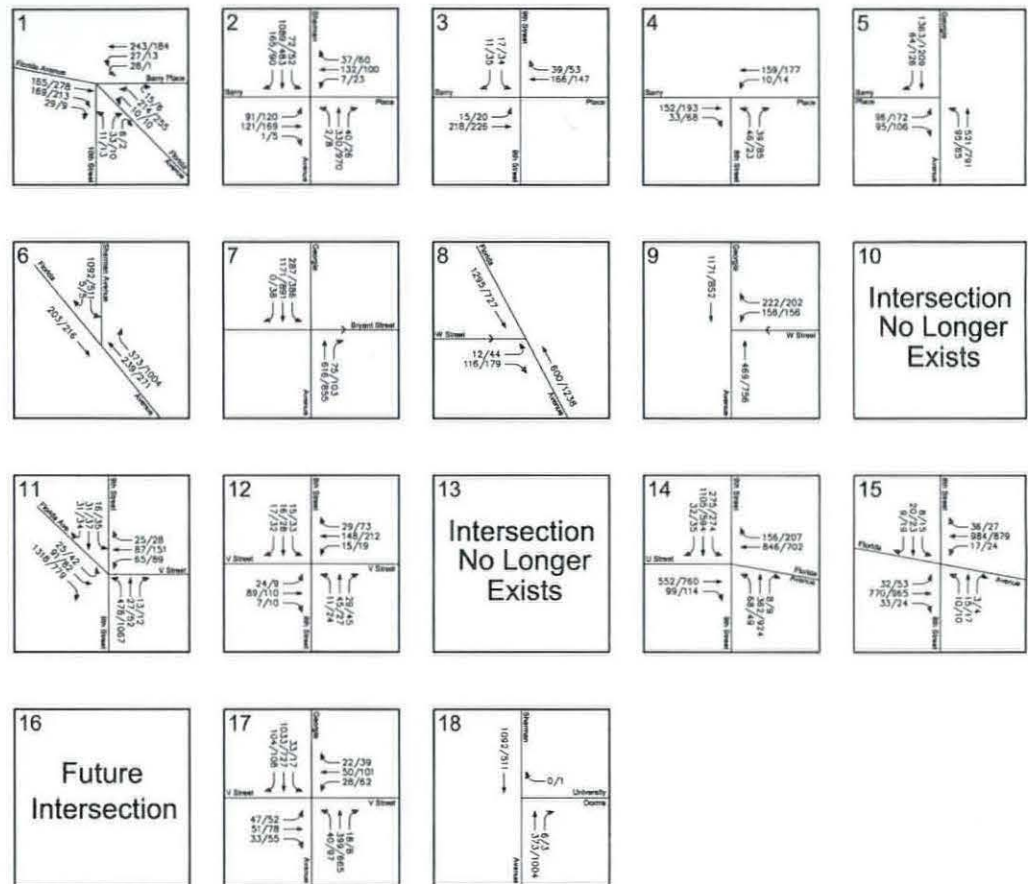
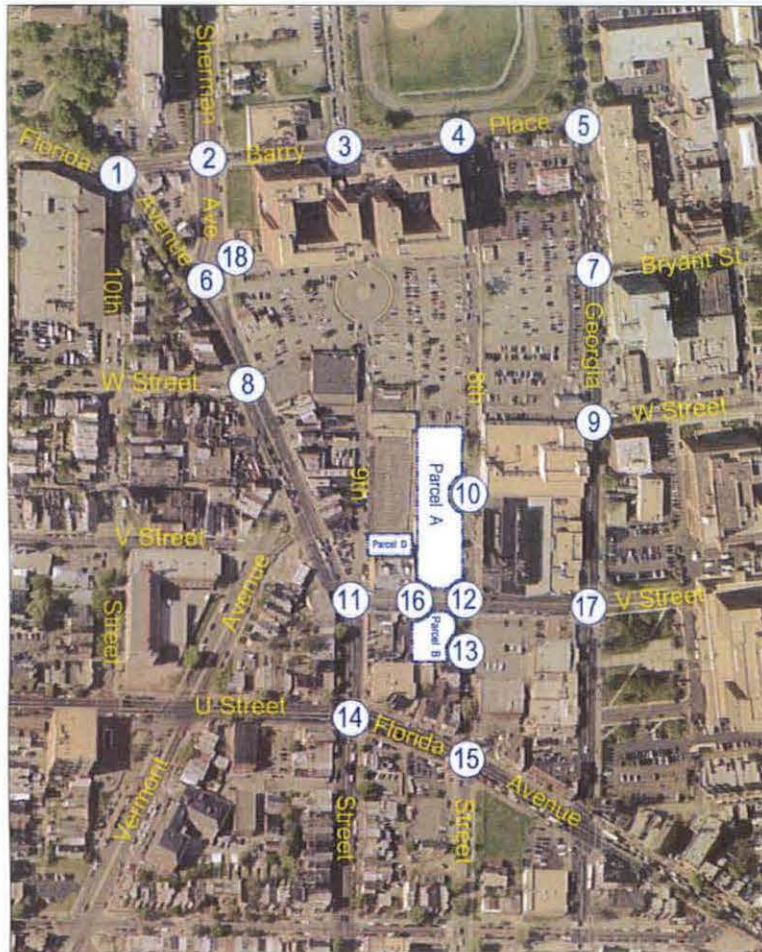


Figure B-1
Background Peak Hour Traffic Volumes
(Atlantic South – August 2006 Addendum)

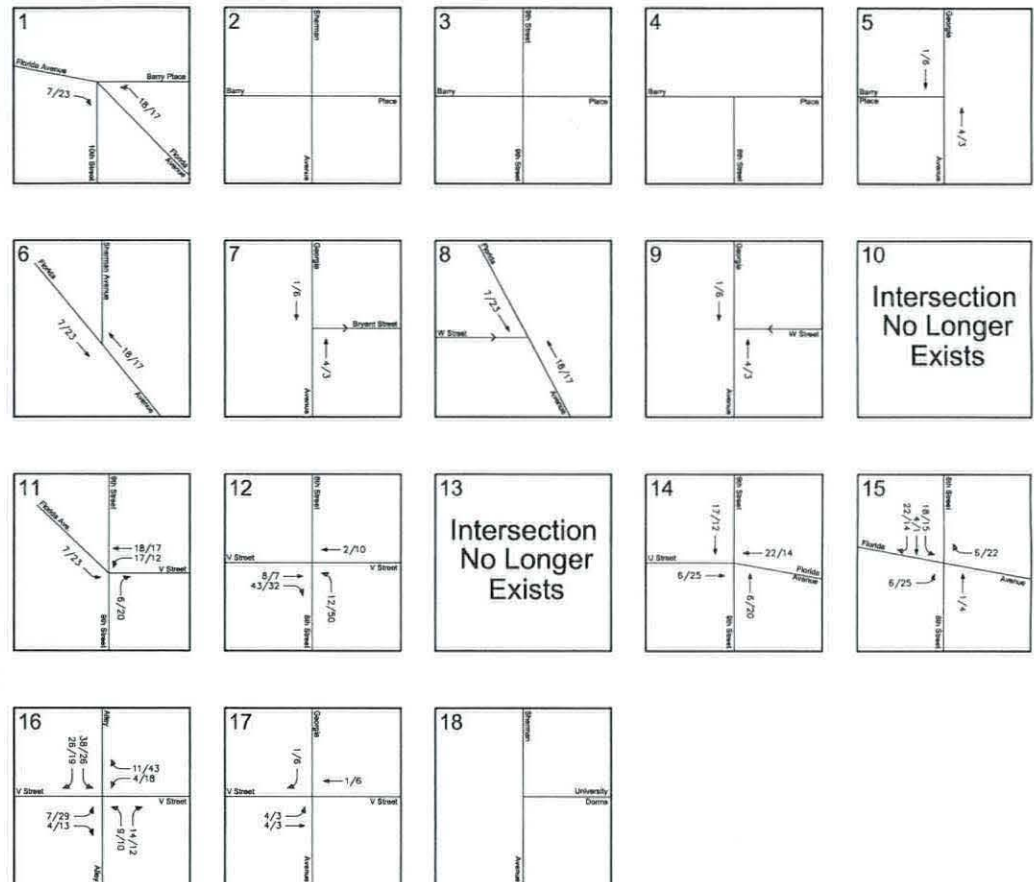
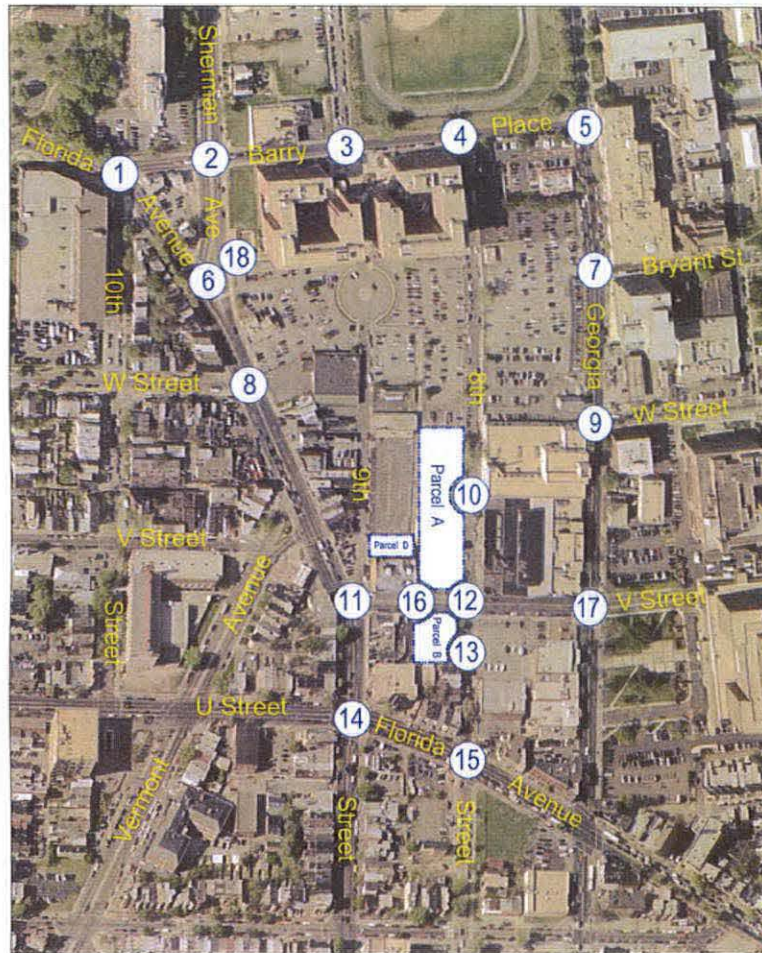


Figure B-2
Site-Generated Trips
(Atlantic South - August 2006 Addendum)

AM PEAK HOUR
PM PEAK HOUR
000/000



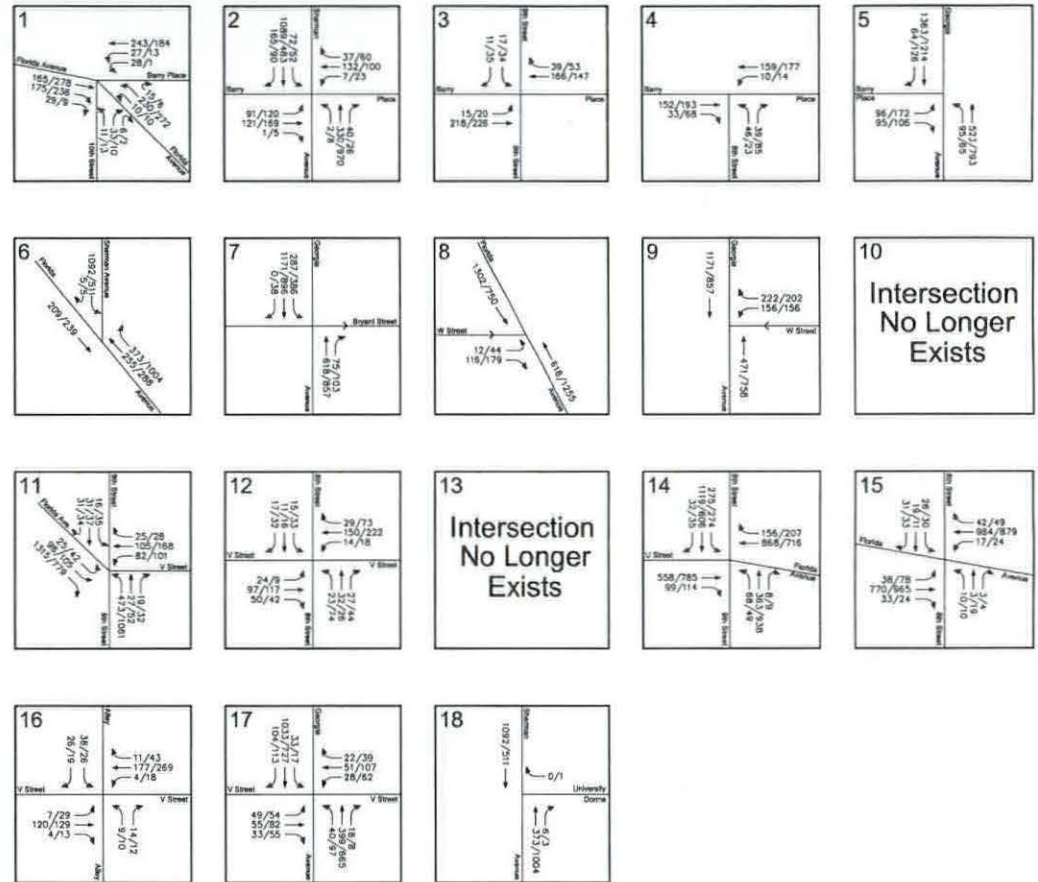
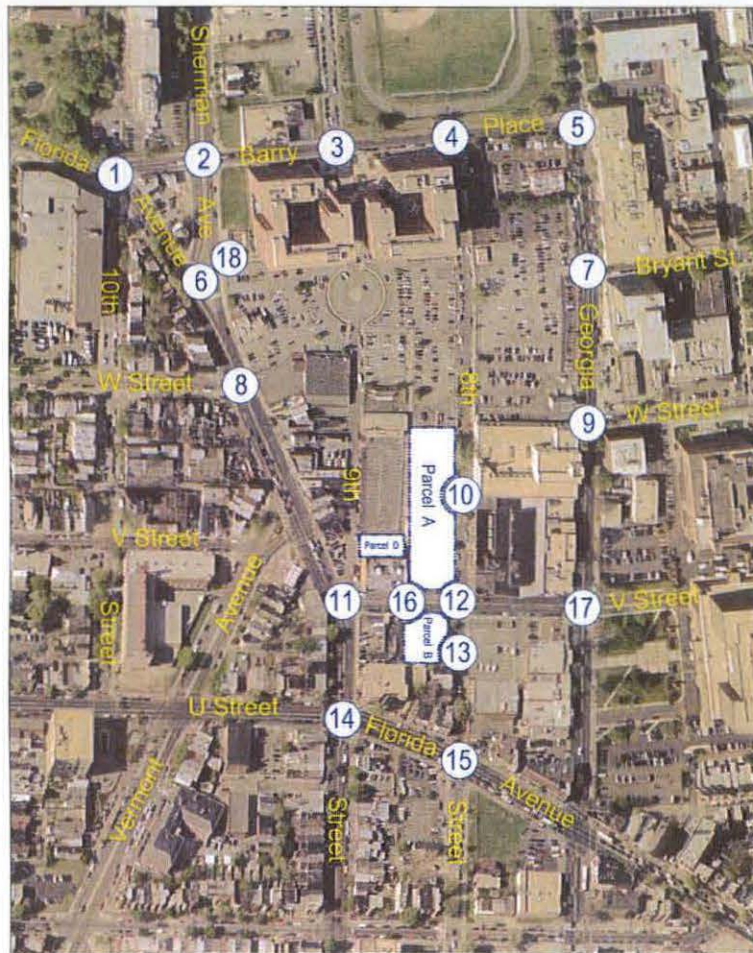


Figure B-3
Total Future Peak Hour Traffic Volumes
(Atlantic South - August 2006 Addendum)

AM PEAK HOUR
PM PEAK HOUR
000/000

